

FISCAL YEAR 2011

LEGISLATIVE REPORT



HOUSEHOLD HAZARDOUS MATERIALS PROGRAM



SAFE, SMART, SOLUTIONS FOR IOWA



The Iowa Department of Natural Resources (DNR) Household Hazardous Materials (HHM) program provides a wide array of opportunities for Iowans to learn about proper purchasing, use, storage, disposal and dangers related to common household products. HHM programs also provide Iowans with proper disposal opportunities. The DNR's HHM programs are funded through a portion of the solid waste tonnage fee and HHM retailer permits.

This Household Hazardous Materials Program report discusses results of these actions undertaken by the Land Quality Bureau and its stakeholder partners in Fiscal Year 2011.

THE IMPACT OF HHMs

HHMs are found in nearly every home; under every sink, in closets, basements and garages. Consequently, nearly every household (and business) in the state generates household hazardous waste. Care should be taken to manage this waste independently from other household (and business) wastes. Improper disposal of HHMs has a negative impact on the environment and aquatic life; potentially contaminating groundwater, surface water and land, impacting air quality and compromising the effectiveness of septic systems and wastewater treatment plant operations.

HHMs are also associated with adverse health and environmental concerns. Health effects caused by hazardous waste can be acute (sudden or immediate onset of severe symptoms) or chronic (gradual onset of symptoms occurring through repeated exposure over an extended period of time). Environmental effects can include fires, explosions and toxic fumes, negative impacts on wastewater treatment and septic system effectiveness and contamination of land and water resources.

HHMs are the leading cause of poisonings in children. For the months of January-November in 2011, the Iowa Poison Control Center reported nearly 9400 exposures to HHMs. Of reported poisonings, 54 percent occurred in children under the age of six.

WHAT IS A HOUSEHOLD HAZARDOUS MATERIAL?

A Household Hazardous Material (HHM) is a term defining common household products that have one or more of the following characteristics:

TOXIC: poisonous, causing cancer or other health problems

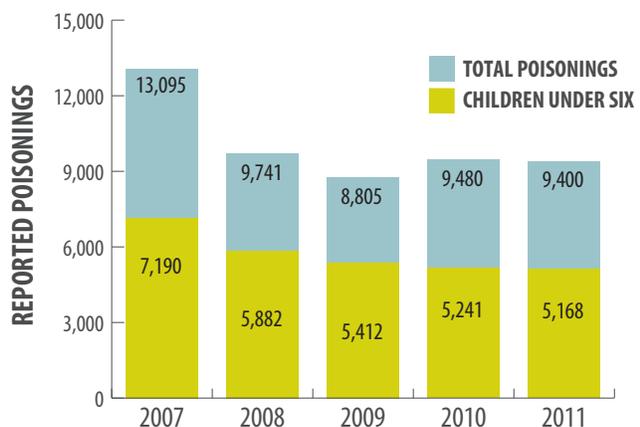
CORROSIVE: destroys human tissue or corrodes metal

FLAMMABLE: easily ignitable

REACTIVE: explosive through exposure to heat, sudden shock, pressure or comes into contact with incompatible chemicals

Household Hazardous Waste (HHW) is commonly defined as waste from residential sources composed of old or unwanted products that exhibit any of the characteristics of HHMs. In Iowa, businesses generating small amounts of hazardous waste are included in the definition of HHW and eligible to participate in DNR programs.

IOWA POISON CONTROL CENTER REPORTED HHM POISONINGS



REGIONAL COLLECTION CENTERS



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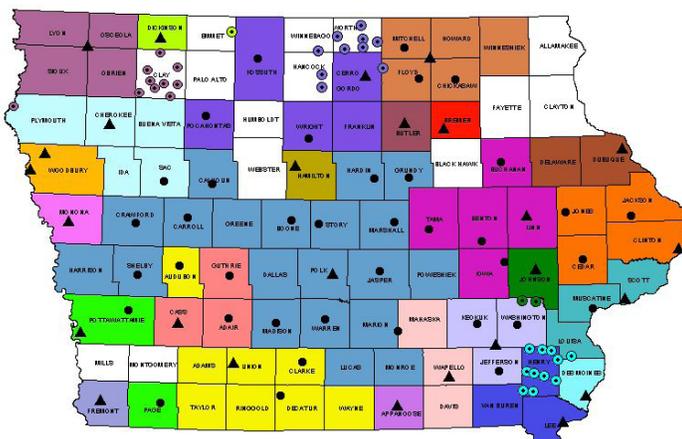
Regional Collection Centers (RCCs) are permanent collection facilities designed to assist the public and conditionally exempt small quantity generator (CESQG) businesses with proper management and disposal of HHMs. RCCs accept hazardous waste for disposal either through local outlets or through contracted service and also provide a materials exchange (Swap Shop) for usable materials and educate citizens about proper purchasing, storage and management techniques for HHMs.

THE BENEFITS OF RCCs

- Permanent availability, often year-round
- Increased surface and groundwater protection
- Increase in worker safety for both solid waste collectors and landfill operators
- Decrease in hazardous exposures to humans and pets
- Reduced potential for damage to sewer and septic systems from improper disposal
- Ongoing education for Iowa residents
- Available for eligible businesses, schools, etc.

RCCs IN IOWA

Currently 26 main facilities and 38 satellite facilities are operating across the state serving a total of 93 counties. RCCs experienced an increase in the amount of materials collected in FY 2011. Five million pounds of HHMs were removed from the solid waste stream: a 25 percent increase from FY 2010. **For local RCC contact information go to www.safesmartolutions.org.**



▲ RCC Main Facilities ● Satellites ⊙ Serviced Cities

Regional Collection Center Service Areas

- | | | |
|--------------------|---------------------|-----------------------------|
| Appanose Co. RCC | Fremont Co. RCC | NIASWA RCC |
| Bremer Co. RCC | Great River RCC | NIASWA Cities |
| Butler Co. RCC | Hamilton | PCB RCC |
| Cass Co. RCC | Haz Chem RCC | Prairie SWA RCC |
| CR/Linn Co. RCC | Haz Chem Cities | SEMCO |
| Clinton Co. RCC | Iowa City RCC | Sioux City RCC |
| Council Bluffs RCC | Iowa City Cities | Wapello Davis RCC |
| Dickinson Co. RCC | LNI RCC | Waste Comm of Scott Co. RCC |
| Dickinson Cities | LNI Serviced Cities | Woodbury Co. RCC |
| Dubuque Co. RCC | Metro Waste RCC | Unserviced areas |
| FMC RCC | Monona Co. RCC | |



REGIONAL COLLECTION CENTER PROGRAM FY 2011 SUMMARY & ACCOMPLISHMENTS

PROGRAM INVESTMENT

Establishment Grants	\$135,317
Operating Assistance Support	\$465,292
TOTAL PROGRAM INVESTMENT FOR FY 2010	\$600,609

MATERIALS MANAGED BY HAZARD TYPE

TOXIC Ex: pesticides, poison	133,310 lbs.
CORROSIVE Ex: drain cleaners, mercury	59,474 lbs.
FLAMMABLE Ex: lighter fluid, aerosols, thinners, oil-based paint	298,584 lbs.
REACTIVE Ex: pool chemicals, toilet bowl cleaners, ammonia	6,315 lbs.

MATERIALS MANAGED BY COMMON PRODUCT TYPE

E-WASTE Ex: computers, televisions, cell phones	1,430,582 lbs.
FLUORESCENTS	91,491 lbs.
LEAD-ACID BATTERIES	166,433 lbs.
MOTOR OIL	653,172 lbs.
OTHER MATERIALS Ex: used oil filters, anti-freeze, rechargeable batteries	1,034,172 lbs.
PAINTS	1,333,030 lbs.

HHMs REUSED LOCALLY THROUGH EXCHANGE/SWAP SHOP	363,814 lbs.
SUBTOTAL CONTRACTED HHM DISPOSAL	2,215,293 lbs.
SUBTOTAL HHMs MANAGED LOCALLY	2,726,101 lbs.
TOTAL AMOUNT OF HHMs MANAGED	5,305,208 lbs.

2011 HHM PROGRAM DETAILS



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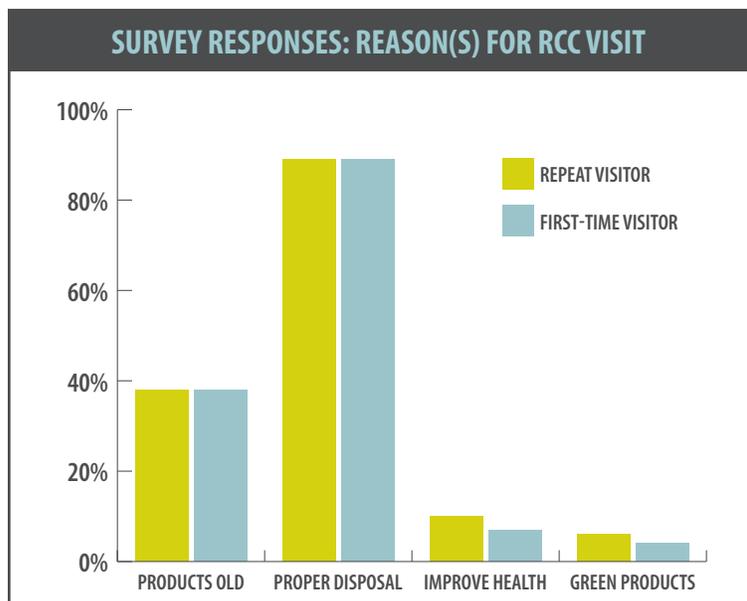
IOWA HHM EDUCATION INITIATIVE

In March 2011, an HHM public awareness campaign was initiated to increase awareness of the potential risks of HHMs to the environment and individual health. Launching the campaign in March coincided with annual spring cleaning and with many RCCs resuming operations after being closed for the winter months.

A short follow-up postcard survey was conducted at each main and satellite RCC facility to help measure the effectiveness of the public awareness campaign. Survey results showed that:

- 63% of respondents were repeat visitors to the RCCs
- More than 32% of respondents indicated the campaign influenced their decision to deliver their HHMs to the RCCs

The survey also asked RCC visitors the reason(s) for bringing unwanted household hazardous materials (HHMs) to the Regional Collection Center. As the graph below indicates, the overwhelming reason for visiting the RCC was to properly dispose of unwanted HHMs. There was very little difference in whether the respondent was a repeat visitor to the RCC or a first-time visitor.



The HHM campaign materials were provided to each RCC for their use and public awareness messages will continue to be strategically released over the next few years. Key messages to the campaign, developed with stakeholder assistance, are:

- Read the label
- Proper purchasing
- Use and store safely
- Proper disposal

TOXICS IN PACKAGING

Iowa's Toxics in Packaging law prohibits the sale or distribution of packaging containing heavy metals such as cadmium, lead, mercury, and hexavalent chromium if intentionally introduced and sets limits on incidental presence of these heavy metals in packaging materials. The purpose of this law is to prevent these toxic heavy metals from entering the environment, recycling stream, landfills, and waste incinerators.

The Toxics in Packaging Clearing House (TPCH), a joint organization of Iowa and nine other states, had many noteworthy activities in FY2011 including the following:

- Executed a research project, funded by the California Department of Toxics Substances Control (DTSC), assessing the performance of seven national and regional laboratories in measuring the concentration of the four restricted metals in packaging samples.
- Published a report on the above research project, *Laboratory Round Robin Test Project: Assessing Performance in Measuring Toxics in Packaging*, and developed an outreach strategy for its release on July 13, 2011.
- Completed the third packaging screening project using x-ray fluorescent (XRF) technology to detect the presence of regulated metals in packaging. The final report will be published in FY12.
- Member states used results of the XRF screening project for coordinated state enforcement of violations of toxics in packaging laws. Seventeen manufacturers, distributors and retailers were contacted by six TPCH member states, including Iowa, and were brought into compliance with state laws through voluntary actions, which included halting the distribution and sale of the packaging in all member states.
- Received a \$50,000 contract from the California DTSC to evaluate the performance of independent laboratories in analytical testing of glass packaging for toxics and to identify test methodologies that provide equivalent results to EPA SW 846 Method 3052 which requires the use of hydrofluoric acid (HFI) for glass matrices.
- Iowa and Washington cooperated to perform analytical testing on reusable shopping bags demonstrating that these bags are at no more risk to contain restricted heavy metals than single use bags. Results can be found at www.toxicsinpackaging.org/projects_publications.html



www.iowadnr.gov

www.safesmartolutions.org

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